



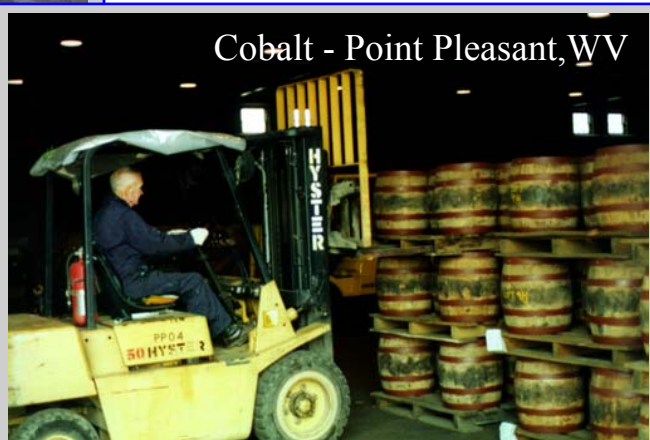
# *Defense Logistics Agency Defense National Stockpile Center*

*Ryan's Notes - Ferroalloys  
October 27 to 29, 2002*

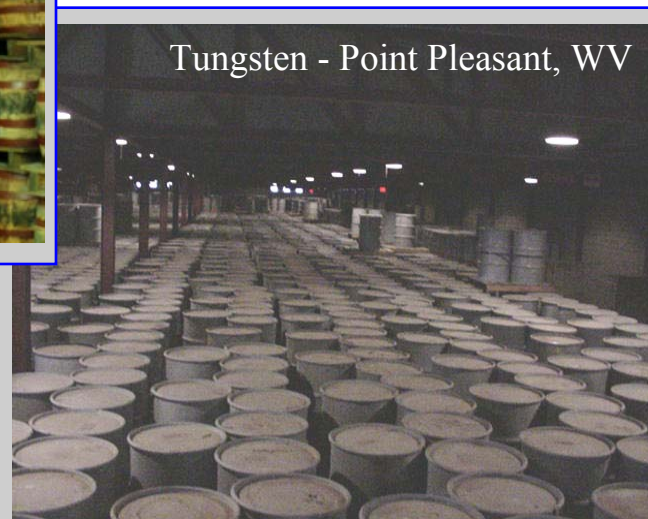
Ferromanganese & Ferrochrome  
- Curtis Bay, MD



Cobalt - Point Pleasant, WV



Tungsten - Point Pleasant, WV





# *DNSC Summary*

- 57 Commodities
- 48 Locations
- \$1.9 Billion in Current Market Value (9/30/02)





# *DNOSC Total Inventory* *\$1.9 Billion (9/30/02)*





# *Stockpile Sales*

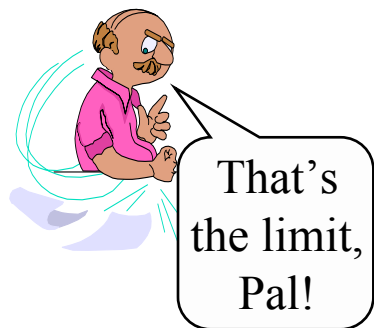
## *...by law must:*

- Be open and competitive



*So we can and do accept bids from both domestic and foreign concerns and, occasionally, from a foreign government*

- “...avoid undue disruption of the usual markets of producers, processors and consumers...”



*So we have an Annual Materials Plan, or AMP, which sets a limit to how much we can **award** in any one year*



# *Market Impact Committee*

## *MISSION:*

“...advise Stockpile Manager on economic effects of disposal...”

## *MEMBERS:*

•STATE

•AGRICULTURE

•DEFENSE

•ENERGY

CO-CHAIRS

•COMMERCE

•INTERIOR

•TREASURY

•FEMA



# *Stockpile Sales Methods*

## ***Sealed Bid***

- Bids opened publicly
- Price is sole determinant
- All award information is made public

## ***Negotiated***

- Offers are not publicly opened
- Price and other factors are negotiable
- Only aggregate or provisional contract amounts and company name made public

## ***BOA***

### *Basic Ordering Agreement*

- Quotes are not publicly opened
- Some pre-negotiated terms
- Only registered companies may participate
- Only aggregate or provisional contract amounts and company name made public



# Basic Ordering Agreement

- ➡ Material for sale posted to DNSC Web Site
- ➡ Participants pre-qualify to participate
  - ➡ Representations and certifications “reps. and certs.”
  - ➡ Financial exposure limit
  - ➡ Pre-negotiated terms
- ➡ Sales forms, BOA available on web page  
<https://www.dnsc.dla.mil>



# *Ferroalloys and Alloying Metals*

*Uncommitted Inventory Authorized for Sale*

*(As of September 30, 2002)*

<u><i>Available Now</i></u>	<u>Units</u>	<u>Authority</u>	<u>2003 AMP</u>
Chromite	ST	210,555	300,000
Ferrochromium	ST Cr	857,638	150,000
Chromium Metal	ST	7,958	500
Cobalt	Lb Co	14,704,362	6,000,000
Columbium Metal Ingots	Lb Cb	80,750	20,000
Columbium Carbide Powder	Lb Cb	<b>SOLD OUT</b>	<b>SOLD OUT</b>
Ferrocolumbium	Lb Cb	<b>SOLD OUT</b>	<b>SOLD OUT</b>
Manganese ore	SDT	852,500	290,000
Manganese oxide	SDT	86,388	33,011
Manganese, Electrolytic	ST	2,308	2,000
Ferromanganese	ST	818,340	25,000
Tantalum Carbide Powder	Lb Ta	12,158	4,000
Tantalum Metal Powder	Lb Ta	40,627	40,000
Tantalum Metal Ingots	Lb Ta	100,628	50,000
Tantalum Ores & Concentrates	Lb Ta	1,909,165	500,000
Tantalum Oxide	Lb Ta	68,174	20,000
Titanium Sponge	ST	16,858	7,000
Tungsten Carbide Powder	Lb W	<b>SOLD OUT</b>	<b>SOLD OUT</b>
Ferrotungsten	Lb W	891,170	300,000
Tungsten Metal Powder	Lb W	1,056,855	300,000
Tungsten Ores & Conc.	Lb W	66,387,068	4,000,000





# *Ferroalloys and Alloying Metals*

## *Sales versus AMP*

*(As of September 30, 2002)*

### *Available Now*

	<u><b>Units</b></u>	<u><b>FY 2001 Sales</b></u>	<u><b>FY 2002 Sales</b></u>	<u><b>FY2002 AMP</b></u>
Chromite	ST	96,541	100,000	300,000
Ferrochromium	ST	23,252	32,052	150,000
Chromium Metal	ST	137	0	500
Cobalt	Lb Co	4,880,435	2,659,161	6,000,000
Columbium Metal Ingots	Lb Cb	19,897	19,909	20,000
Columbium Carbide Powder	Lb Cb	0	21,372	21,500
Ferrocolumbium	Lb Cb	106,266	SOLD OUT	150,000
Manganese ore	SDT	1,500	300,480	290,000
Manganese oxide	SDT	1,490	30,000	33,011
Manganese, Electrolytic	ST	1,964	1,945	2,000
Ferromanganese	ST	50,000	26,841	75,000
Tantalum Carbide Powder	Lb Ta	4,500	0	4,000
Tantalum Metal Powder	Lb Ta	45,144	0	50,000
Tantalum Metal Ingots	Lb Ta	3	40,023	50,000
Tantalum Ores & Concentrates	Lb Ta	11,298	0	500,000
Tantalum Oxide	Lb Ta	25,010	0	20,000
Titanium Sponge	ST	16,858	7,000	7,000
Tungsten Carbide Powder	Lb W	831,084	SOLD OUT	1,000,000
Ferrotungsten	Lb W	300,966	302,923	300,000
Tungsten Metal Powder	Lb W	300,190	317,013	300,000
Tungsten Ores & Conc.	Lb W	4,123,580	0	4,000,000



# *Chromium Group*

## *Total Inventory 9/30/2002 (Short Tons)*

### **Chemical Chromite**

• Mechanicsburg, PA	43,379
• Somerville, NJ	34,748
• Warren, OH	<u>7,494</u>
	<b>85,621</b>

### **Refractory Chromite**

• Belle Mead, NJ	90,945
• Mechanicsburg, PA	33,229
• Moss Landing, CA	<u>16,713</u>
	<b>140,887</b>



Outloading Chromite – Warren, OH



# *Chromium Group*

## *Total Inventory 9/30/2002 (Short Tons)*

### **Chrome Metal - Electro.**

• Binghamton, NY	1,609
• New Haven, IN	1,140
• Somerville, NJ	148
• Warren, OH	<u>2,490</u>
	<b>5,387</b>

### **Chrome Metal - Alumino.**

• Binghamton, NY	252
• New Heaven, IN	912
• Point Pleasant, WV	322
• Somerville, NJ	255
• Warren, OH	<u>646</u>
	<b>2,387</b>



# *Chromium Group*

## *Total Inventory 9/30/2002 (Short Tons)*

### **LC Ferrochromium**

• Belle Mead, NJ	42,672
• Hammond, IN	2,820
• New Haven, IN	31,401
• Point Pleasant, WV	74,281
• Ravenna, OH	64,433
• Scotia, NY	3,502
• Somerville, NJ	9,365
• Voorheesville, NY	21,185
• Warren, OH	<u>8,480</u>

**257,689**

### **HC Ferrochromium**

• Curtis Bay, MD	88,758
• Hammond, IN	102,599
• New Haven, IN	93,701
• Point Pleasant, WV	139,527
• Sharonville, OH	127,300
• Warren, OH	<u>49,831</u>

**601,716**



High Carbon Ferrochrome - Curtis Bay, MD



# *Ferrochrome Sales by Type*

*Short Tons*

*(As of September 30, 2002)*

	<b>FY 2000</b>	<b>FY 2001</b>	<b>FY 2002</b>
	<b><u>Sales</u></b>	<b><u>Sales</u></b>	<b><u>Sales</u></b>
High Carbon FeCr	70,000	0	20,800
Low Carbon FeCr	5,000	29,000	11,900
FeCrSi	41,000	3,000	10,600
TOTAL	116,000	32,000	43,300
AMP	150,000	150,000	150,000



# *Chromium Group*

- Both high carbon and low carbon ferrochrome are offered through the BOA process. Availability is posted each Tuesday. This inventory is in bulk piles or 55 gallon steel drums.
- All Chromite is offered on a negotiated basis on the second Tuesday of each month.
- Future chromium metal sales will be through the sealed bid process. The sales schedule has not been established at this time. All metallic chrome is in palletized steel drums containing 450 to 500 lbs. of metal.



# *Cobalt*

- BOA offerings may be made weekly. Availability is posted each Tuesday. Negotiated sales or sealed bid as deemed necessary.
- Granules and rondelles usually stored in 500 lb. kegs.
- Cathode is stored in 30 or 55 gallon steel drums.







# *Cobalt Cathodes*

## *Total Inventory 9/30/2002 (LB Co)*

### **Gecamines UMK Cathode**

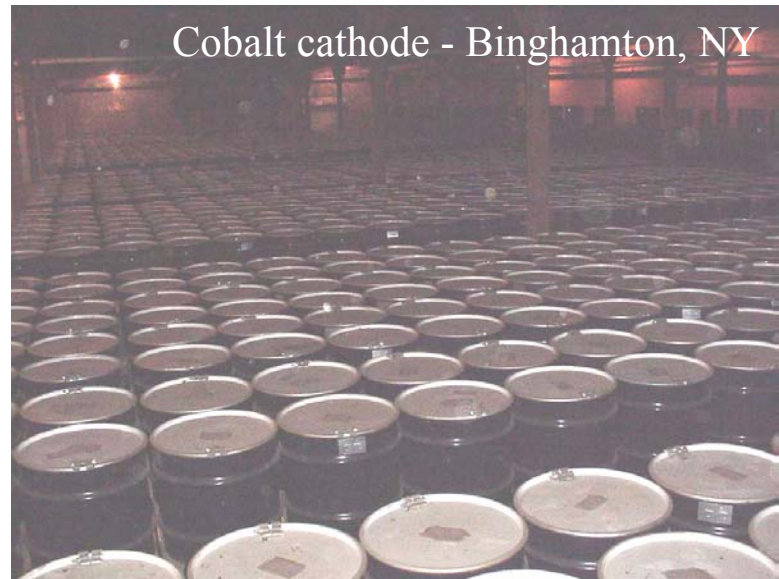
• Binghamton, NY	3,996,898
• New Haven, IN	1,510,776
• Warren, OH	<u>1,047,865</u>
	<b>6,555,539</b>

### **ZCCM Cathode**

• Binghamton, NY	<b>49,488</b>
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### **Inco Cathode**

• Binghamton, NY	<b>299,673</b>
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# *Cobalt Rondelles*

## *Total Inventory 9/30/2002 (LB Co)*

### **Rondelles >99.3% Co**

• Scotia, NY	49,712
• Somerville, NJ	<u>378,522</u>
	<b>428,234</b>

### **Rondelles <99.3% Co**

• New Haven, IN	147,970
• Scotia, NY	289,217
• Somerville, NJ	260,961
• Warren, OH	<u>94,306</u>
	<b>795,454</b>



# *Cobalt Granules*

## *Total Inventory 9/30/2002 (LB Co)*

### **Granules >99.3% Co**

• New Haven, IN	1,290,034
• Point Pleasant, WV	435,697
• Somerville, NJ	388,419
• Warren, OH	<u>157,179</u>
	<b>2,271,329</b>

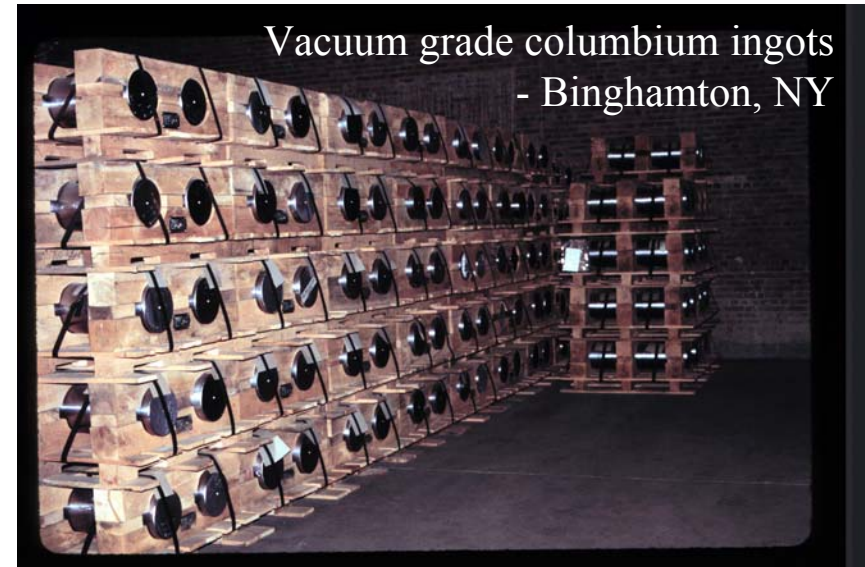
### **Granules <99.3% Co**

• Binghamton, NY	19,222
• New Haven, IN	2,328,364
• Point Pleasant, WV	206,181
• Scotia NY	61,911
• Somerville, NJ	492,000
• Warren, OH	<u>1,168,361</u>
	<b>4,276,039</b>



# *Columbium Metal*

- Vacuum grade metal ingot is offered in negotiated sale.
- Annual AMP authority usually sells out in first sale
- Ingots are 11” by 40” with two ingots cradled on each pallet.
- All metal ingot is stored in Binghamton, NY.





# *Manganese Group*

## *Total Inventory 9/30/2002 (Short Tons)*

### **Manganese Oxide, Nat.**

• Belle Mead, NJ	27,210
• Curtis Bay, MD	24,377
• Marietta, PA	4,506
• Ravenna, OH	7,360
• Warren, OH	<u>19,623</u>
	<b>83,076</b>

### **Manganese Metal**

• Binghamton, NY	685
• New Haven, IN	924
• Warren, OH	<u>700</u>
	<b>2,309</b>

### **Manganese Oxide, Syn.**

• Hammond, IN	232
• New Haven, IN	1,132
• Warren, OH	<u>1,647</u>
	<b>3,011</b>





# *Manganese Group*

## *Total Inventory 9/30/2002 (Short Tons)*

### **Manganese Ore, Met.**

• Arco, ID	21,476
• Batesville, AR	15,111
• Clearfield, UT	2,755
• Fort Worth, TX	169,061
• Hawthorne, NV	22,213
• Henderson, NV	19,859
• Herlong, CA	24,298
• Pine Ridge, AR	9,843
• Pueblo, CO	4,846
• Shumaker, AR	2,031
• Tooele, UT	27,051
• Wenden, AZ	<u>367,903</u>
	<b>686,447</b>

### **Manganese Ore, Chem.**

• Curtis Bay, MD	<b>92,591</b>
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### **HC Ferromanganese**

• Curtis Bay, MD	118,200
• Hammond, IN	74,406
• Marietta, OH	73,902
• New Haven, IN	35,703
• Point Pleasant, WV	312,327
• Seneca, NY	84,527
• Warren, OH	<u>121,923</u>
	<b>820,988</b>



# *Manganese Group*

- All materials are offered on a negotiated basis.
- This inventory is in bulk piles or steel drums.
- There are six forms of manganese in inventory.
- Metallurgical grade manganese ore is sold on a daily basis.
- Manganese metal is sold every other month.



# *Tantalum Group*

## *Total Inventory 9/30/2002 (LB Ta)*

### **Ta Carbide Powder**

• New Haven, IN	2,115
• Somerville, NJ	8,355
• Warren, OH	<u>1,686</u>
	<b>12,156</b>

### **Ta Ores & Concentrates**

• Binghamton, NY	551,567
• New Haven, IN	649,475
• Scotia, NY	143,435
• Warren, OH	<u>540,277</u>
	<b>1,884,754</b>

### **Ta Metal, Capacitor Grade**

• Baton Rouge, LA	4,602
• Somerville, NJ	<u>30,024</u>
	<b>34,626</b>

### **Ta Oxide**

• New Haven, IN	<b>68,174</b>
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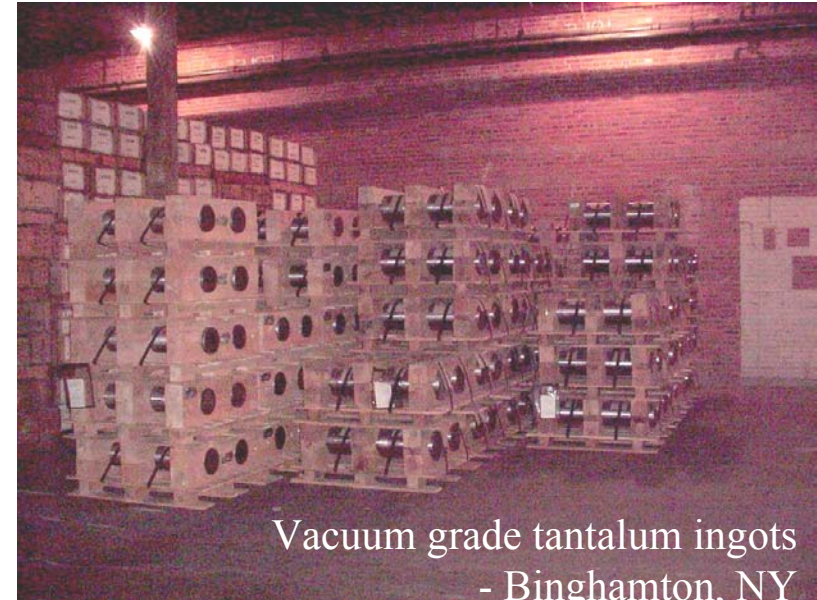
### **Ta Metal, Vacuum Grade**

• Binghamton, NY	<b>100,628</b>
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# *Tantalum Group*

- All materials are offered on a negotiated basis.
- There are five types of tantalum in inventory.
- These materials are not offered on a set schedule. The timing and form of the material are determined by market conditions.
- Tantalum metal, vacuum grade is in cradles. Carbide is in plywood boxes containing six drums with 50 to 75 pounds of material per drum. Capacitor grade powder is in wooden boxes containing 12 one-quart polyethylene bags. Remaining types of tantalum are in 30 to 50 gallon steel drums.



Vacuum grade tantalum ingots  
- Binghamton, NY





# *Tungsten*

## *Total Inventory 9/30/2002 (LB W)*

### **CONCENTRATES**

• Binghamton, NY	7,758,200
• Clearfield, UT	2,325,200
• Columbus, OH	1,178,832
• Hammond, IN	348,835
• New Haven, IN	1,334,299
• Pt. Pleasant, WV	5,586,073
• Scotia, NY	35,390,545
• Somerville, NJ	12,152,324
• Warren, OH	<u>306,867</u>
<b>Subtotal</b>	<b>66,381,175</b>

### **ORES**

• Herlong, CA	<u>5,893</u>
<b>Total Ores &amp; Conc.</b>	<b>66,387,068</b>

### **METAL POWDER**

• Binghamton, NY	19,238
• Clearfield, UT	14,328
• Columbus, OH	92,789
• New Haven, IN	771,494
• Point Pleasant, WV	72,799
• Somerville, NJ	32,768
• Warren, OH	<u>53,447</u>
	<b>1,056,863</b>

### **FERROTUNGSTEN**

• Binghamton, NY	310,850
• Pt. Pleasant, WV	6,301
• Somerville, NJ	519,157
• Warren, OH	<u>58,467</u>
	<b>894,775</b>



# *Tungsten*

- Monthly negotiated sales alternating between ferrotungsten and tungsten metal powder.
- Ferrotungsten is between 58% and 83% W, packaged in wooden boxes or drums.
- Metal powder is packaged in drums.
- Ores and concentrates are packaged in 30 to 55 gallon steel drums.





# *Coming Attractions*

- **Strategic Supply Alliance**
  - DNSC will partner with industry to establish pricing benchmarks
  - Material available anytime
  - Based on negotiated formula price
  - Limited to monthly maximums
- **Improved Public Sales Website**
  - Will deploy incrementally
  - Features interactive submission of reps. and certs.
  - First changes to appear November 12
- **Cobalt industry meeting**
  - December 12, 2002 in Crystal City, VA



# Improved Web Site

Required fields are marked in yellow and with an asterisk (\*)

## 15. Type of Business Organization (APR 96)

### Primary Bidder Information

First Name:\*

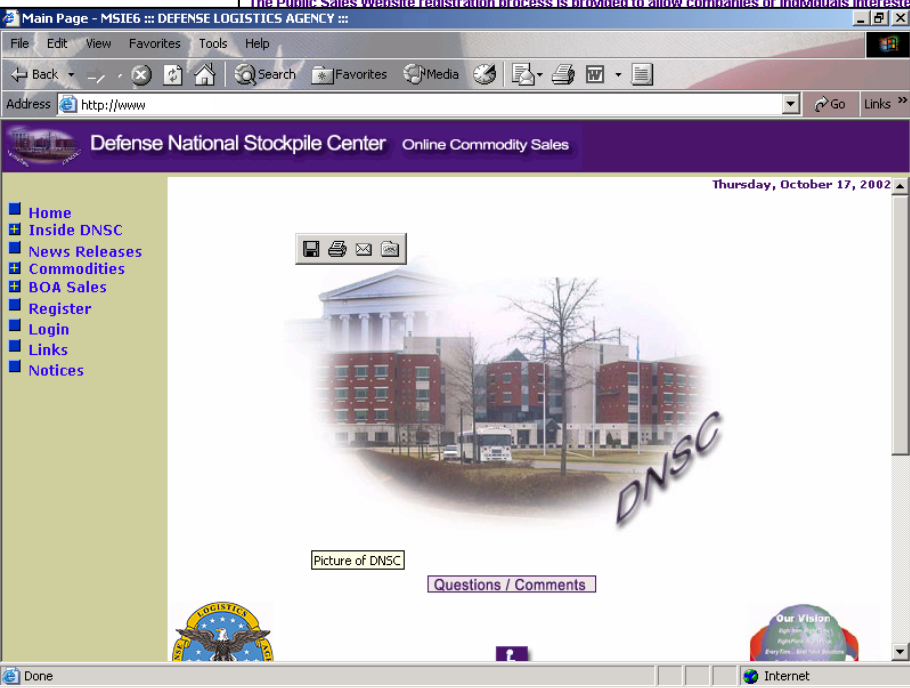
M.I.

Required fields are marked in yellow and with an asterisk (\*)

### Company Information

### Registration Instructions

The Public Sales Website registration process is provided to allow companies or individuals interested in bidding on commodities included in the aff. Registration is a five(5)-step process s & Certs) into a database. In Step 1, one requires acknowledgement of four (4) Reps ered. After submission of the registration e notified by e-mail when the account is



ive at least one number and one letter.

Accept

Reject

Bidder First Name, Last Name, Phone Number, E-mail

e choices must be selected about the **type of** country that it operates in.  
her the corporation is **individually owned or**

00 Employees)

ust be completed.

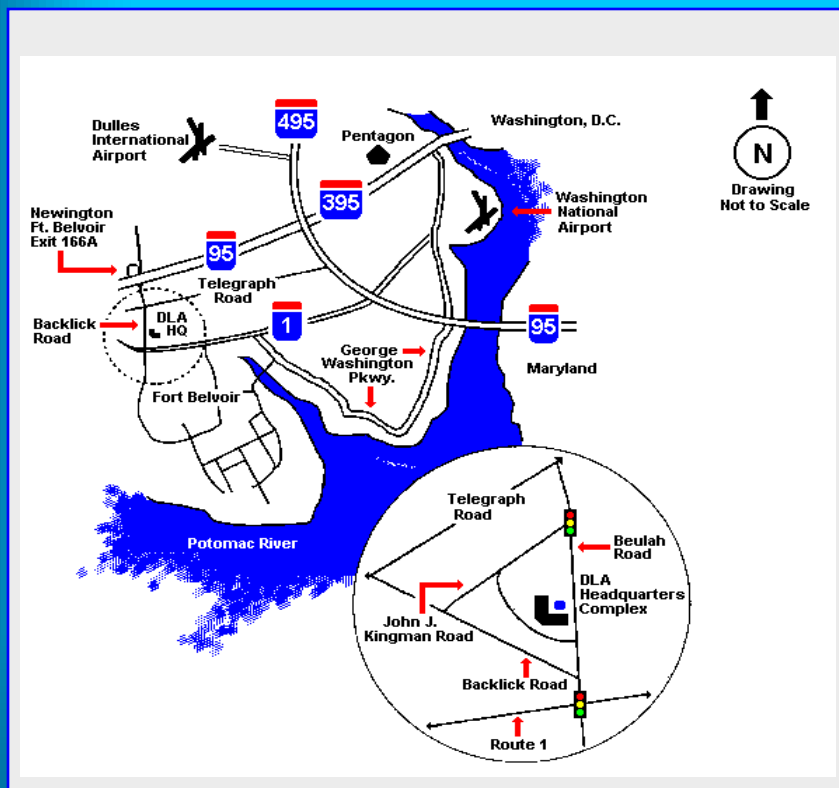


# *Come Visit Us*

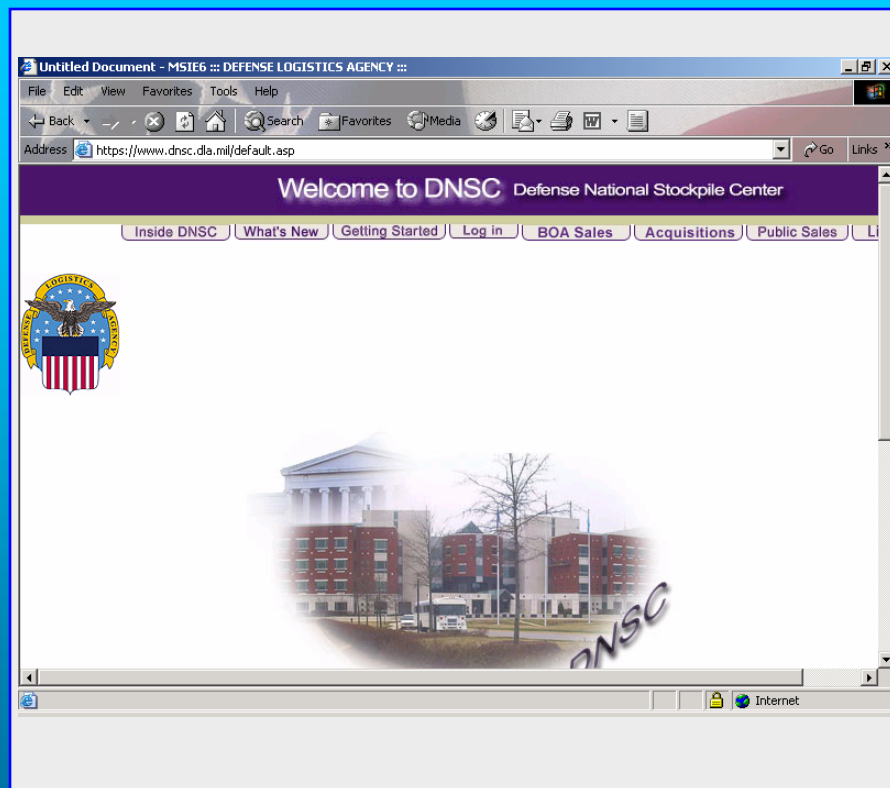
*1-703-767-5500*

*...at the office*

*...or on our website*



**Fort Belvoir, VA**



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